Reflections on

"Lifting the Curse of Dimensionality:

Measures of the Labor Legislation Climate in the States

During the Progressive Era"

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Fishback, Holmes and Allen begin their article "Lifting the Curse of Dimensionality: Measures of the Labor Legislation Climate in the States During the Progressive Era," by observing that developing summary measures of the policy climate is "one of the most difficult problems in the social sciences." The balance of the paper is an effort to construct such measures for labor legislation in the United States from 1899-1924, an era of substantial changes in the legal context of labor market transactions. Fishback, Holmes and Allen (hereafter F-H-A) describe the construction of four aggregate measures of the amount of labor legislation in effect in each U.S. state and document the extent of correlation among these measures at different points in time as well as the similarities and differences in the course of their evolution over time.

F-H-A make a convincing case that the indexes they have calculated capture an interesting dimension of variation across states, but precisely what is being measured and how we should interpret it remains at this point unresolved. It is helpful to start by reviewing in more detail what we learn from F-H-A's indexes.

- First, it is apparent that the extent of labor legislation varied widely across states in the early 20th century. Their Employment Share Weighted Index of labor legislation for 1895 ranged from a high of 0.467 in New Jersey, implying that on average approximately half of all workers in the state were covered by legislation in each of the nineteen categories of legislation they consider, to a low of 0.013 in Mississippi, where essentially no workers were covered by any legislation.
- Second, the variations across states are similar no matter whether one looks at the numbers of workers covered, the number of pages devoted to describing this legislation, or the number of dollars spent per worker to enforce this legislation.
- Third, regardless of which measure of labor legislation one adopts there was a generally positive trend in the measure over time, and the different measures suggest similar rankings in the magnitude of changes across different states.

All of this is quite interesting, but what, exactly, is being measured by the quantity of labor legislation?

Theory does not provide much guidance about how to interpret the presence of more labor legislation. One view of market regulations sees them arising out of competition of different interest groups—e.g., labor and employers—that seek to use the political process to alter the outcomes of competitive markets in ways that benefit their interests at the expense of other groups in society. In this view, more labor legislation could be interpreted as reflecting both the greater strength of labor vis-à-vis other interests and a more favorable climate for labor.

On the other hand, according to the public interest theory of regulation, regulations are introduced primarily to solve problems of imperfect information, incomplete markets or public goods. In other words, regulation reflects an effort to solve problems that cause outcomes to deviate from efficient outcomes that would be achieved in a perfectly competitive market. The latter interpretation implies that higher levels of labor regulation reflect the increasing complexity of labor market transactions and the growing deviation of markets from the ideal of perfect competition. Such an interpretation makes it difficult to interpret increasing legislation as reflecting anything about the relative strength of labor vis-à-vis other interests. Rather, it suggests that the rising level of regulation reflects the increasing complexity of the modern economy.

An excellent illustration of this complexity is provided by Fishback and Kantor's (2000) careful analysis of the history of workers' compensation legislation. The rapid adoption of workers' compensation laws between 1910 and 1920 they argue reflected the fact that public intervention came to be seen as beneficial both by employers and by workers. Workers paid for most of the increase in post-accident benefits though lower real wages. Meanwhile, the new regime reduced employer uncertainty by removing the risk of potentially large liabilities if they were found to be at fault. The rapid adoption of workers' compensation laws reflected not so much changes in the balance of power of different interest groups but shifts in the legal environment that altered the costs of the prevailing negligence regime. "The adoption of workers' compensation was not," Fishback and Kantor (2000, p. 88) write, "the result of employers' or workers 'capturing' the legislation to secure benefits at the expense of the other. Nor can its adoption simply be attributed to the success of Progressive Era social reformers demanding protective legislation."

Without understanding the dynamics underlying the adoption of the various labor regulations reflected in the different indexes that F-H-A have developed it is thus difficult to know how to interpret variations in these measures. That is we need to understand what is going on within states that leads them to either adopt or not adopt legislation. Such a perspective suggests an analogy to models of the diffusion of innovations. Walker (1969) draw precisely such an analogy in his study of the pace of state adoption of broad range of regulation. Interestingly, Walker's innovation score, constructed on the basis of the timing of adoption of each of 88 different legislative innovations within each state looks surprisingly similar to the F-H-A indexes constructed at the beginning of the twentieth century (see Figure 1). Thus it appears that differences in the quantity of labor legislation are one manifestation of a broader pattern of cross-state variation in the propensity to legislate.

F-H-A seek in their paper to shed light on possible explanations for these variations through an examination of the correlates of cross-state variation in labor climate. But I am skeptical about the possibility that we can learn a great deal from such an exercise without making stronger assumptions about the underlying mechanisms that have given rise to the data. The cross-section regression framework is appropriate only if we think that the relative levels of labor legislation reflect at least approximately an equilibrium situation. This is certainly possible, but given the potential lags in political response to conditions it is equally plausible that the cross-section variation we are observing reflects a disequilibrium situation to which states are slowly responding. This may be on reason that so few of the effects reported in Table 5 are statistically distinguishable from zero, and why in Table 6 changes in measures of labor legislation are negatively and significantly correlated with their starting values.

Before going further down the route of attempting to “account” for across-state variations in labor legislation it may be more fruitful to dig more deeply into the characteristics of that variation. One promising approach is to examine the data at a higher degree of disaggregation. F-H-A’s use of nonparametric spatial coordinates to locate states in a two dimensional policy space suggests the value of such an approach. While COORDINATE ONE corresponds relatively closely with the pattern of variation of the univariate indexes, COORDINATE TWO captures a pattern of variation in legislation more closely associated with mining states. More generally this suggests that we may learn more about the growing level of regulation by understanding the connections between different strands of labor market regulation. Looking more closely at what types of regulation tended to go together, and what patterns of timing can be observed across states would thus seem to offer interesting avenues of exploration.

Similarly it would be interesting to know more about how different regulatory innovations diffused across states. Were some states consistently leaders, while others were consistently followers? Or did innovations emerge from a variety of different sources? Once a new form of regulation was introduced, how were time lags in adoption affected by state characteristics? Did these lags get longer or shorter over time? Finally, it would be worth thinking about whether, as the level of regulation rose, regulatory environments became more or less similar across states.

Another, and more ambitious line of investigation would be to consider how labor legislation affected labor market outcomes. The challenge here, is the simultaneous endogeneity of regulation and its consequences. Interest in regulation presumably arose because of certain labor market conditions—either an effort to shift the terms of exchange in favor of one party or the other, or to alleviate market imperfections and enhance efficiency. Given the effort and expense that went into the development and enforcement of the array of regulation that F-H-A summarize one would hope that they in fact did have an appreciable impact on the labor market (though these effects may not have always been those the proponents of regulation hoped to achieve). It seems reasonable, in this light, that we should be able to detect the impact of regulations either individual or in aggregate on labor market outcomes such as employment, wages, profits, migration, and productivity.

The challenge (possibly insurmountable) with attempting to discern the impact of different regulatory environments is the problem of constructing an appropriate counterfactual. If, as seems likely, differences in the regulatory environment were in part a response to differences in the circumstances of different states, then we cannot simply compare outcomes across different regulator environments. Identifying truly random variations in the regulatory environment will be (at best) quite challenging.

In his Presidential address to the Economic History Association, Moses Abramovitz (1993, pp. 218-19) described himself as "…just that sort of contrary character who gets as much satisfaction from contemplating how much we do not know as he does from thinking about how much we do." Such a perspective may not be common in the general public, but I suspect that many historians and economists would identify with Abramovitz's in preferring good questions to good answers. In their analysis of the climate of state labor market regulation in the Progressive era F-H-A are to be commended both for helping us to see the answer to the question of how much regulation there was, and for raising many as yet unanswered questions about how to interpret the facts that they have helped to illuminate. Like all good scholarship, what they find has posed more questions than it answers. But by providing a basis to begin to delineate these questions and suggesting possible approaches to them their paper offers the promise of new understanding yet to come.

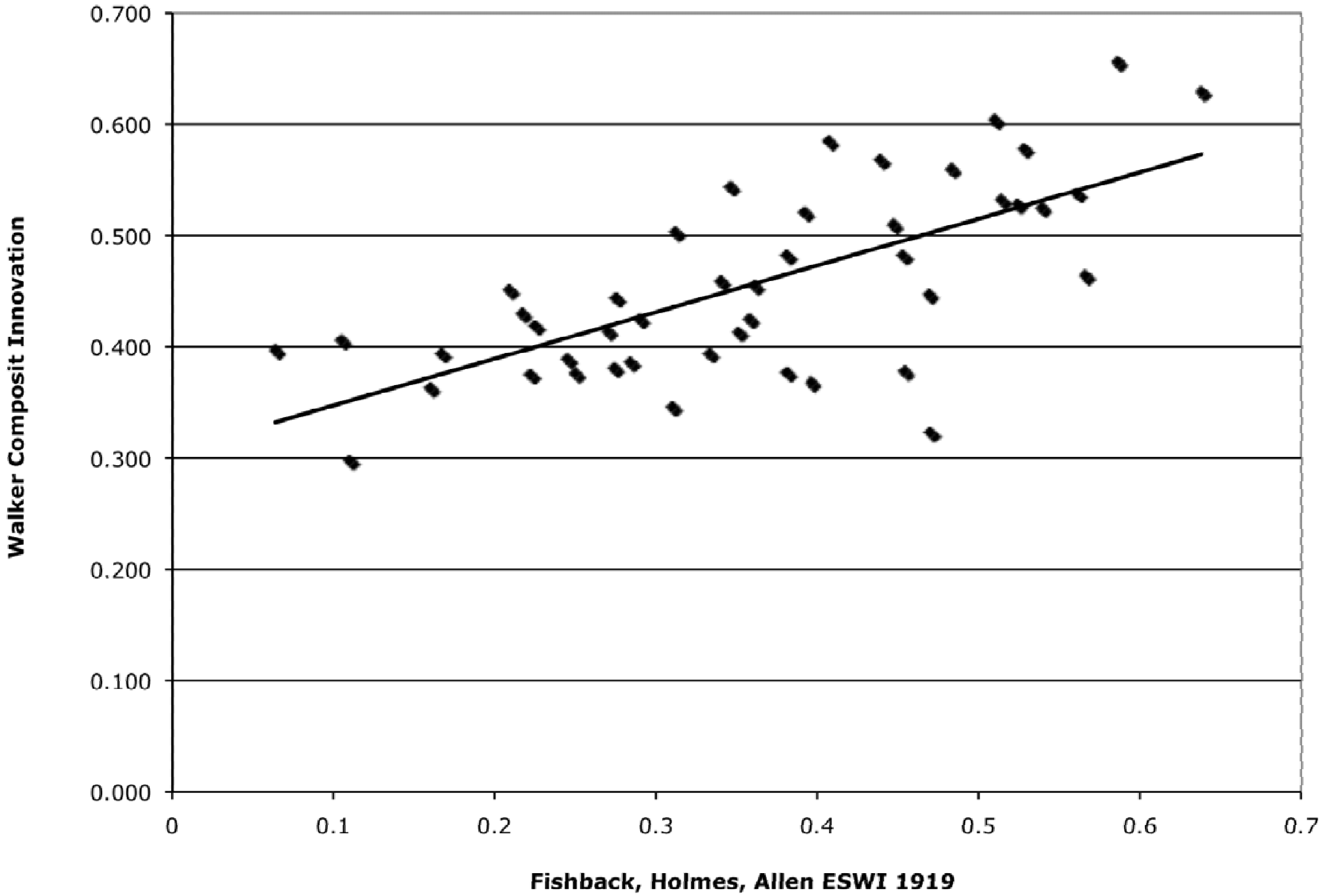

Figure 1: Comparison of Walker Composite Innovation Index and Fishback, Holmes, Allen Labor Regulation Index

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